

1. All-weather road - A term used frequently in mapping to indicate a road which is passable throughout the year with no appreciable loss in capacity: "All-seasons" is considered to be more definitive where this type of classification is desired, since weather conditions such as cloudbursts, flooding, and snow blockage can completely close roads for varying periods. The preferred method of classifying roads, however, is by surface type, which is related directly to capacity.
2. Limited all-weather road - Same as all-weather road except that capacity is reduced considerably during bad weather.
3. Fair-weather road - A term used frequently for mapping to indicate a road which quickly becomes impassable in bad weather and which cannot be kept open by normal maintenance. Since impassability is more closely related to season than to weather, the term "seasonal road" provides a better description. Classification by surface type is preferred, however, since this is related directly to capacity.

DIA review(s) completed.

Requirement 2. Route Capacities
(Reference: Section II.C. of Terms of Reference)

1. Provide present dry and wet season route capacities for North Vietnam and Laos as follows:
 - a. Routes 1A and 15 south of the Thanh Hoa area.
 - b. All routes between Vinh or the coast and the Tan Ap area on route 15.
 - c. All connections between routes 15 and 101 and the routes in Laos.
 - d. Laotian routes 12, 23, 911, 9, 92, 921, 922, 923, 96, 165, and routes south of 165.
 - e. Any other routes considered to be significant in supplying Laos or South Vietnam.
2. What effect did the US/GVN air strikes have on routes capacities in North Vietnam during 1965? What effect have the recent interdiction efforts had on route capacities in Laos? What is the present throughput capacity of the Laotian supply route, taking recent interdiction efforts into account?
3. What effect will present construction activities have on route capacities in North Vietnam and Laos during 1966? What will be the probable throughput capacity of the Laotian supply route at the end of 1966,

assuming the same level of US/GVN interdiction as in 1965? How much of this route will be all-weather?

4. Provide an estimate of the present theoretical capacity of the sea route from North Vietnam, taking into consideration current Market Time operations.

5. Provide present dry and wet season capacities of the roads in Cambodia that approach the border of South Vietnam. How much tonnage could be moved over these routes without active, overt Cambodian cooperation?

Deadline to CIA: 28 January 1966

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Requirement 2. Route Capacities

NORTH VIETNAM

| Highway Route Number | Highway Route Segment | *April 1965 Max. Cap. | | Present Max. Cap. | | Projected Dec 66 Max. Cap. | | Remarks |
|----------------------------|-----------------------------|--------------------------|---------------|----------------------|---------------|-------------------------------|---------------|---|
| | | Dry Season | Wet Season | Dry Season | Wet Season | Dry Season | Wet Season | |
| 1A | Than Hoa - Rt. 7A | 3800 | 1100 | 1350 | 250 | } | ** | * Significant improvements to main coastal Route 1A are not expected. Development of an interior alternate north-south artery is probably underway to alleviate present reliance on Rt. 1A. |
| | 7A Jct - Vinh | 1200 | 250 | 1200 | 250 | | | |
| | Vinh - Ha Tinh | 850 | 100 | 850 | 100 | | | |
| | Ha Tinh - SVN Bdr | 750 | 100 | 850 | 100 | | | |
| 15 | Bai Thuong - Nghia Hung | 550 | 100 | 500 | 100 | 750 | 150 | ** Major portions of Route 15 will probably be integrated into the alternate inland north-south artery. |
| | Nghia Hung - Rt. 7A | 550 | 100 | 550 | 100 | 750 | 150 | |
| | 7 Jct - Vinh | 750 | 150 | 750 | 150 | 750 | 150 | |
| | Vinh - Xom Con Cau | 450 | 100 | 450 | 100 | 750 | 150 | |
| | (via Rt. 8 to Dia Loi) | | | | | | | |
| | Dia Loi - Xom Con Cau | 800 | 150 | 600 | 100 | 600 | 100 | |
| | Xom Con Cau - Mu Gia Pass | 600 | 100 | 450 | 100 | 600 | 100 | |
| 7 | Rt. 1A - Vat Giav | 1050 | 200 | 900 | 200 | 900 | 200 | |
| | Vat Giav - Cua Rao | 700 | 150 | 700 | 150 | 700 | 150 | |
| | Cua Rao - Laos Bdr | 600 | 100 | 450 | 100 | 500 | 150 | |
| 8 | Linh Cam - Rao Qua | 1100 | 350 | 700 | 150 | 700 | 150 | |
| | Rao Qua - Keonua Pass | 450 | 100 | 400 | 100 | 500 | 150 | |
| * See | AP-1-335-4-1-65 INT | | | | | | | |
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Requirement 2. Route Capacities

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| Highway Route Number | Highway Route Segment | *April 1965 Max. Cap. | | Present Max. Cap. | | Projected Dec 66 Max. Cap. | | Remarks |
|----------------------------|-----------------------------|--------------------------|---------------|----------------------|---------------|-------------------------------|---------------|--|
| | | Dry Season | Wet Season | Dry Season | Wet Season | Dry Season | Wet Season | |
| 75 | Ke Mung - Ban Na Khom | | | 50 | 0 | 300 | 100 | Portions of route (central portion) undefined. |
| 76 | Ban Na Khom - LV Bord | | | 50 | 0 | | | Central portion undefined. Intended development undiscernable. |
| 152 | Ha Tinh - Dia Loi | 800 | 150 | 800 | 150 | 800 | 150 | |
| 102 | Rt. 101 - Laos Bdr | 300 | 0 | 150 | 150 | 300 | 150 | |
| 103 | Rt. 101 - Xom Bang | 550 | 100 | 550 | 100 | 550 | 100 | |
| | Xom Bang - Rt. 102 | 50 | 0 | 150 | 0 | 300 | 100 | |
| 116 | Rt. 15 - Ban Co Ba | 700 | 150 | 400 | 0 | 600 | 100 | |
| | Ban Co Ba - Ban Chieng | 600 | 100 | 600 | 100 | 600 | 100 | |
| 118 | Rt. 1 - Bai Thuong | 750 | 250 | 750 | 250 | 750 | 250 | |
| | Bai Thuong - Muong Piet | 400 | 0 | 400 | 0 | 400 | 0 | |
| 127 | Rt. 15 - Laos Bdr | 600 | 100 | 600 | 100 | 600 | 100 | Maintained in 1965 as the main supply route to Laos border and Jct Rt. 65, Laos, in effort to keep PAVN/PL troops in Sam Nena area resupplied. |
| * See | AP-1-335-4-1-65 INT | | | | | | | |

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Requirement 2. Route Capacities

NORTH VIETNAM

| Highway Route Number | Highway Route Segment | *April 1965 Max. Cap. | | Present Max. Cap. | | Projected Dec 66 Max. Cap. | | Remarks |
|----------------------------|-----------------------------|--------------------------|---------------|----------------------|---------------|-------------------------------|---------------|--|
| | | Dry Season | Wet Season | Dry Season | Wet Season | Dry Season | Wet Season | |
| 153 | Jct Rt. 8 - Laos Bdr | Trail | Trail | Trail | Trail | | | 5-mile track west of Jct Rt. 15 under improvement in late 1965 and January 1966. Surface width 16-18 ft., improved earth. Remainder of route is only a 6 ft. track deteriorating to a trail 5 mi. east of Laos border. |
| 154 | Rt. 15 - Laos Bdr | 50 | 0 | 50 | 0 | | | |
| 193 | | 300 | 0 | 50 | 0 | | | |
| 196 | | 50 | 0 | 50 | 0 | 300 | 100 | Possibly motorable, connecting waterway at Lang Mo and Laos border. Probable future connection with Laos Rt. 911. |
| 702 | | --- | --- | --- | --- | --- | --- | Trail/track only. Development into motor route expected but extent unknown. |
| * See | AP-1-335-4-1-65 INT | | | | | | | |

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Requirement 2. (Con't)

LAOS

| Highway Route Number | Highway Route Segment | *April 1965 Max. Cap. | | Present Max. Cap. | | Projected Dec 66 Max. Cap. | | Remarks |
|----------------------------|--------------------------------|--------------------------|---------------|----------------------|---------------|-------------------------------|---------------|--|
| | | Dry Season | Wet Season | Dry Season | Wet Season | Dry Season | Wet Season | |
| 9 | SVN Bdr - Song Cua Lo Riv | 800 | 150 | 400 | 0 | | | a. SVN - Ban Dong; 14 mi.; seasonal not used for thru traffic; poor condition. |
| | | | | 600 | 100 | | | b. Ban Dong - Song Cua Lo Riv; 13 mi.; limited all-season; fair condition. |
| | Song Cua Lo Riv - Rt. 23 | 550 | 50 | 550 | 50 | 750 | 150 | When gravel surface is improved to fair condition. |
| 12 | SVN Bdr - Rt. 8 | 600 | 100 | 450 | 100 | | | Gravel surface deteriorated to improved earth. |
| 23 | Rt. 12 - Rt. 9 | 400 | 0 | 500 | 100 | | | a. Rt. 12 - Rt. 11; 16 mi.; limited all-season, improved earth and log-corduroyed surface; fair condition. |
| | | | | 306 | 0 | | | b. Seasonal; no thru traffic reported during the 1965 rainy season. |
| | Rt. 9 - Se'Bang Hieng Riv | 150 | 0 | 150 | 0 | | | |
| | Se'Bang Hieng Riv - Jct Rt. 16 | 400 | 0 | 400 | 0 | | | |
| | Jct Rt. 16 - Ban Thateng | 700 | 150 | 700 | 150 | | | |
| | Ban Thateng - Jct Rt. 232 | 700 | 150 | 700 | 150 | | | |
| | Jct Rt. 232 - Rt. 13 | 3800 | 1100 | 3800 | 1100 | | | |
| 92 | SVN Bdr - Song Ben Ha Riv | 150 | 50 | 150 | 50 | | | |
| | Song Ben Ha Riv - Rt. 9 | 50 | 0 | 150 | 50 | | | <u>New Alinement</u> joins Rt. 9 Vic Sepone. |
| | Rt. 9 - Jct 921 | 500 | 100 | 400 | 100 | | | Leaves Rt. 9 Vic. Bang Dong; limited all-season. |
| | Jct 921 - Jct 922 | 500 | 100 | 400 | 100 | | | Limited all season. |
| | Jct 922 - Jct 162 | 400 | 100 | 150 | 50 | 400 | 100 | a. Rt. 922 - Rt. 923; under repair in January 1966. |
| | | | | 90 | 0 | | | b. Rt. 923 - Rt. 162 appears abandoned; traffic thru Rt. 96. |

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WHEN SUPPLEMENTED

Requirement 2. (Con't)

LAOS

| Highway Route Number | Highway Route Segment | *April 1965 Max. Cap. | | Present Max. Cap. | | Projected Dec 66 Max. Cap. | | Remarks |
|----------------------------|--|--------------------------|---------------|----------------------|-------------------|-------------------------------|---------------|--|
| | | Dry Season | Wet Season | Dry Season | Wet Season | Dry Season | Wet Season | |
| 96 | Rt. 923 - Rt. 165 Rt. 165 - Rt. 16 - CA/LA border | | | Est. 200 Est. 50 | Est. 50 Est. 0 | 400 400 | 100 100 | Under construction as of January 1966. Under improvement, possibly jeepable as of January 1966. |
| 165 | Rt. 16 - SVN Bdr | 50 | 0 | 100 200 | 0 50 | 400 400 | 100 100 | a. Rt. 16 - Rt. 96, poor condition, seasonal. b. Rt. 96 - SVN; fair condition, seasonal. |
| 911 | Rt. 23 - Rt. 91 | | | Est. 200 | Est. 100 | 500 | 100 | Rt. under construction and improvement January 1966; limited all season; alternate to Rt. 23. |
| 921 | Rt. 92 - SVN Bdr | 200 | 50 | 50 | 0 | | | Traffic possibly proceeding via Rt. 922; deteriorated to 6-8 ft. track. |
| 922 | Rt. 92 - SVN Bdr | 100 | 0 | 200 | 50 | | | Limited all-season; surface improved by log-corduroy method. |
| 923 | Rt. 92 - Ban Tampril | 50 | 0 | 400 50 | 100 0 | | | a. Rt. 92 - Rt. 96; 4 mi.; improved in conjunction with Rt. 96. b. Rt. 96 - Ban Tampril; jeepable track. |
| 16 | Jct Rt. 23 - Attapev Attapev - Muong Cao Muong Cao - SVN Bdr | 400 500 50 | 0 0 0 | 400 500 50 | 0 0 0 | | | Jeepable track. |
| 167 | Rt. 16 - Attapev Old (YB 0052)-(YB 0837) Attapev Old - YB 1945 YB 1945 - Jct Rt. 16 (YB 4431) | | | 450 650 50 | 0 0 0 | | | Bypass of the Attapev Conclave; 11 mi. Improved earth in poor condition; 7 mi. Jeepable track; 12 mi. |

* See

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WHEN SUPPLEMENTED

Requirement 2. (Con't)

NORTH VIETNAM

| Waterway Route Number | Waterway Route Segment | *April 1965 Max. Cap. | | Present Max. Cap. | | Projected Dec 66 Max. Cap. | | Remarks |
|------------------------------|--|--------------------------|----------------------|----------------------|----------------|-------------------------------|----------------|---------|
| | | *Dry Season | *Wet Season | *Dry Season | *Wet Season | *Dry Season | *Wet Season | |
| Song Chu | Mouth of Song Chu - Bai Thuong Bai Thuong - Sammuea, Laos | 25 0 | 50 25 | 25 0 | 50 25 | | | |
| Song Ca | Benthuy - Tuong Que | 2000 | S.T.P.D. | 2000 | S.T.P.D. | | | |
| | Tuong Que - Tri Le | 250 | S.T.P.D. | 250 | S.T.P.D. | | | |
| | Tri Le - Cau Rao | Perennially 0 | 50 | Perennially 0 | 50 | | | |
| Song Ngan | Sau Song Ca Riv - Houng Khe | 25 | 2000 | 25 | 2000 | | | |
| | Houng Khe - Bai DVC Thon | 25 | S.T.P.D. Perennially | | | | | |
| Kien Giang | Tonkin Gulf - Than Ha | 1000 | 2500 | 1000 | 2500 | | | |
| | Than Ha - Luat Son | 25 | 50 | 25 | 50 | | | |
| Ben Xe | Confluence of Ben Hai Riv - Ben Quang | 50 | S.T.P.D. Perennially | | | | | |
| Song Ben Hai/Rao Thanh | Mouth of Song Ben Hai-Ban Tham | 1000 | 2000 | 1000 | 2000 | | | |
| | Ban Tham - Bo Ho So | 50 | 150 | 50 | 150 | | | |

* Dry season denotes low water
* Wet season denotes high water

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Requirement 2. (Con't)

LAOS

| Waterway Route Number | Waterway Route Segment | *April 1965 Max. Cap. | | Present Max. Cap. | | Projected Dec 66 Max. Cap. | | Remarks |
|-----------------------------|--|--------------------------|----------------------|----------------------|-----------------|-------------------------------|-----------------|---------|
| | | Dry * Season | Wet * Season | Dry * Season | Wet * Season | Dry * Season | Wet * Season | |
| Se Bang Fai | Mekong Riv - Bang Dang | 50 | 500 | 50 | 500 | | | |
| | Bang Dang - to Rt. 23 Channel Overpass | 25 | 50 | 25 | 50 | | | |
| Se Bang Hleng | Mekong Riv - Ban Nathon | 50 | 500 | 50 | 500 | | | |
| | Ban Nathon - SVN Bdr | 50 | S.T.P.D. Perennially | | | | | |
| Se Pone | Confluence with Se Bang Hleng - SVN Bdr | 50 | 500 | 50 | 500 | | | |
| Se Kong | Cambodia - Waterfall N.E. of Ban Phone | 25 | 250 | 25 | 250 | | | |
| | Waterfall - An Ling | 25 | 50 | 25 | 50 | | | |

* Dry season denotes low water
Wet season denotes high water

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Requirement 2. (Con't)

CAMBODIA

| Waterway Route Number | Waterway Route Segment | *April 1965 Max. Cap. | | Present Max. Cap. | | Projected Dec 66 Max. Cap. | | Remarks |
|-----------------------------|-------------------------------|--------------------------|----------------|----------------------|-----------------|-------------------------------|-----------------|---------|
| | | Dry * Season | Wet* Season | Dry* Season | Wet * Season | Dry * Season | Wet * Season | |
| Srepok (Ea Krong) | Stung Treng RVN border | 25STPD | 50STPD | 25STPD | 50STPD | 25STPD | 50STPD | |
| Ea Hleo/ IA Meur | Srepok to RVN border | --- | 25STPD | --- | 25STPD | --- | 25STPD | |
| Ya Drang | Srepok to RVN border | 25STPD | 50STPD | 25STPD | 50STPD | 25STPD | 50STPD | |
| Se San | Srepok to RVN border | --- | 25STPD | --- | 25STPD | --- | 25STPD | |
| Se Kong | Stung Treng to Laotian border | 25STPD | 250STPD | 25STPD | 250STPD | 25STPD | 250STPD | |

* Dry season denotes low water
Wet season denotes high water

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